# Students Thrive When Subjected to Intense Work Expectations and Tremendous Fun

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#### <u>Introduction</u>

During Week 5, the students were expected to exhibit their aptitude in individual and group midterm presentations, lightning talks to HQ, and journal presentations while pushing the limits of mankind beyond the stars in their labs. They were also expected to have as much fun as humanly possible in Laser Tag, the Monterey Bay Aquarium and Research Institute, and rocking out with Van Halen. They managed to meet those expectations to infinity and beyond.

#### **Methods and Results**

#### **Monday 7/13**

On Monday all the SLSTPers wore their finest clothing to get their portraits taken with the NASA meatball. They were very happy with their polos. Really (Figure 1)

#### Tuesday 7/14

On Tuesday, everyone woke up bright and early to give their midterm presentations on their achievements in the first 5 weeks to management, the SLSTP mentors, and each other's labs. They were all thoroughly impressed.



Fig. 1 depicting Maximilien, Joseph, Basem, Chris, and Victor in their SLSTP polos eagerly waiting outside the meatball room to have their photos taken.

# Wednesday, 7/15

On Wednesday morning, we all started the morning in our respective labs or at the mandatory antiharassment training. At lunchtime, we met up with representatives from NASA HQ, as well as Jeff, Kristina, and Jon, to give 2-minute lightning talks summarizing our individual projects thus far. It was a very informative hour and a half, and the presentations prompted some great discussion about each project. We then returned to our labs for the afternoon, before congregating at Mega Bites for happy hour, where we enjoyed appetizers and drinks. A limited number of complimentary tickets were being given out to the Van Halen concert at Shoreline the next evening, and Basem managed to score a few.

## Thursday, 7/16

Thursday was a day filled mostly with lab work, with the exception of the weekly colloquium. This week's speaker was NASA's Deputy Administrator, Dava Newman, who spoke briefly about her career before handing the microphone over to the audience to ask questions in a town hall style meeting. There to help answer questions was Ames's center director Eugene Tu. They addressed a wide variety of questions, including NASA's role in combating global warming (primarily through Earth observing systems) and the importance of inspiring the next generation of STEM students.

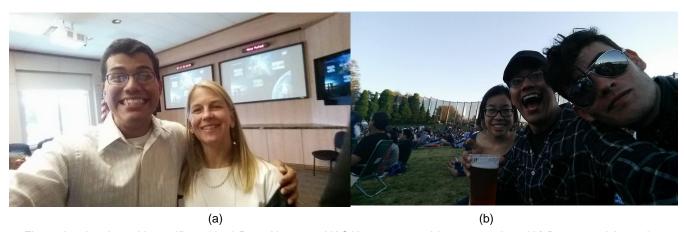


Fig 2. showing Jon taking selfies with a) Dava Newman, NASA's new second-in-command, and b) Basem and Amanda on the lawn of Shoreline Amphitheatre, awaiting the band. Their faces exhibit smiles indicating the joy of their free attendance courtesy of Mega Bites.

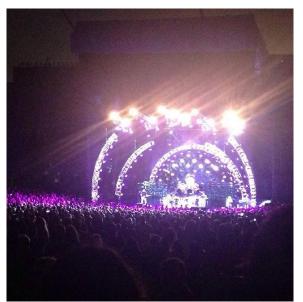


Fig 3. illustrating Basem's view of the fun and excitement that was the legendary Van Halen concert.

After work, most of us met to finish up the Genelab presentation for the following day. We nailed down the topics to cover and then split into three groups (Data acquisition, GUI, and analysis tools) to go over our respective parts. Basem, Amanda, and Jonathon then thoroughly enjoyed the Van Halen concert.

The official NASA portraits with the wonderful green SLSTP polos were finally published online and everyone was able to see the most minute details of their beautiful faces. Amanda managed to prove herself the fairest of them all by scoring the most likes on social media.

### **Friday, 7/17**

Friday morning began with anti-harassment training for those who had not yet completed it. At lunchtime, a small group attended a brown bag lunch for interns with the deputy administrator, Dava Newman, who spoke at the previous day's colloquium. She asked the interns to briefly introduce themselves and their project before opening up the floor to questions. Similar to the previous day's talk, there was a wide variety of questions that she and Eugene Tu addressed. The afternoon brought the GeneLab midterm group presentation. Brad, Jon, and Homer were able to attend and give feedback, as well as providing some clarification of expectations. We seemed to be headed in the right direction, despite having quite a bit of work left to do. It seems that the next step will be to speak with potential GeneLab users and obtain feedback on our designs, as well as improvements they would like to see in the current design. Catherine, Basem, and Becca spent their day harvesting organs related to their projects from the carcasses of the fallen mice, while Victoria pipetted all day long.



Fig. 4 showing content Amanda, contemplating Jon and Basem eating shawarmas and falafel for dinner at Shoreline.

In the evening, we drove over to Shoreline to eat dinner at some of the many food trucks that were parked there. Most of us then went to Laser Quest for a few quick games of laser tag.

Buzz Lightyear brought honor to Star Command by defeating the evil emperor Zurg, Lightning, Alpaca, and the Marshal himself. Finally, we went back to the Lodge to socialize with other interns before retreating to our chambers.

#### Saturday 7/18

On Saturday, the SLSTPers traveled to Monterey Bay with MARTI to get a tour of the Aquarium and its Research Institute from the coordinator of their internship program (Figure 5D). We learned about the research being performed there, their "genelab" equivalent for ocean data, and how they use omics in their work.





(b)





(c) (d)



Fig. 5 (a) showing curious Joe at MBARI, (b) the SLSTPers indulging in pecan and frosted cinnamon rolls, (c) SLSTP snuggling in a clam, (d) SLSTP and MARTI on a tour of the Monterey Bay Research Institute, (e) the gang enjoying the marine world, and (f) Basem and Anna creating life in the form of an SLSTP jellyfish

In the evening, Victoria, Basem, Amanda, Becca, Jon, and SLSTP Uncle David went to a vineyard in Saratoga, where they watched Jon Rask's hair flutter in the wind as he and his band played classic rock. The team bonded by playing some card games before going to bed





Fig. 6 showing Jon Rask's band "Free Fahlin" playing some energizing rock music at the vineyard, and Victoria and Basem looking on.

## **Acknowledgements**

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# **Contributions**

B. Al-Shayeb and A. Hayden wrote the manuscript, B. Al-Shayeb took the pictures.